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IT CAN BE SUCCESSFULLY DEVELOPED IN CANADA

UNDER A

Reasonably Liberal Government Policy:

OBSERVATIONS BY

ROBERT H. LAWDER.

OTTAWA
PRINTED BY THOBURN & Co., No. 36 ELGIN STREET
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THE BEET SUGAR INDUSTRY.

The principal objections entertained with respect to any attempt to extend the beet sugar industry in Canada at the present time, are based on the expectation that the present unprecedentedly low prices of sugar are likely to continue, and on the impression that the conditions here are so unfavorable as compared with the beet manufacturing countries of Europe, that it will be impossible to conduct the business profitably in this country, except by the maintenance of such an excessive rate of bonus as would largely outweigh all the advantage which the country would derive from the enterprise. This paper is intended to discuss these two objections.

First, as to present price of sugar, the following quotations are taken from "Sugar," published in London, January 15, 1895:—

AVERAGE PRICES OF 88° BEET-SUGAR FOR 11 YEARS

			Highest.	Lowest.
1884	13/11		18/4½	9/9
1885	14/		16/9	10/
1886	12/	5 years' average 13/3½	15/9	10/1½
1887	12/2		16/	10/6
1888	14/3		16/3	12/6
1889	16/11		28/4½	11/1½
1890	12/7		14/3	11/4½
1891	13/3		14/9	12/4½
1892	13/7	6 years' average 13/10	15/	12/6
1893	15/3		19/3	12/3
1894	11/6		13/1½	8/6

The above statement shows that the present low prices of sugar are not the result of a natural or gradual reduction produced by decreasing cost of production, but are wholly attributable to the over-production of beet-sugar in Europe from beet crop of 1894, the increase over preceding year being about one million tons. This was caused by the immense profits realized by manufacturers of beet sugar in cam-

paign of 1893. Very nearly as low a price as present quotation (9/3) was reached in 1884, but before crop of 1885 had matured, price advanced to 16/9.

It is generally believed that the present very low prices of sugar will so largely increase the year's consumption that the excess of sugar stock now held will be greatly worked off before the next crop comes in. Steps are being taken in most of the beet-producing countries to decrease the spring's area cultivated to beets; and the contracts with farmers are being made for smaller quantities of beets, and at lower prices than last year, and it is expected that by this means prices for sugar will soon be restored to their average value.

The situation of the beet sugar industry in Germany is so critical that it is proposed that the bounty on exports (at present 15 cents per 100 lbs. of raw sugar) should be increased, for this season only, to 48 cents per 100 lbs.

The actual cost of production of fair refining raw sugar, either of cane or beet, is about $2.60 per 100 lbs. The present price, 9/ @ 9/3, is equal to $2.00 per cwt., leaving a heavy loss to producers on every cwt. sold.

Mr. Edgar Tripp, commercial agent for Canada, in Trinidad and Tobago, in a recent report to the Dominion Government, estimates the cost of producing raw cane sugar at £12.0.0 to £13.0.0 per ton; the medium is equal to 12/6 per cwt., or per 100 lbs., $2.61½.

"Deutche Zuckerindustrie" gives the following statement of the results of the operations of 15 standard beet sugar factories in Germany. The average for the three years 1890-91 to 1892-93, was:—

Tons of beets worked per season..................		33,279
Cost of beets per 1,000 Kilos (2,204½ lbs.).........		$5 05
equal per ton, 2,000 lbs........	$4 58	
Cost of coal per ton of beets worked..............		52
equal per ton, 2,000 lbs........	47	
Cost of labor in factory per 1,000 Kilos............		48
equal per ton, 2,000 lbs........	44½	
Miscellaneous expenses (per 1,000 Kilos............		96
equal per ton 2,000 lbs........	87	
Total cost of beets and manufacturing (2,204½ lbs.)..		7 01
equal per ton, 2,000 lbs........	6 36	

With a yield of 100 lbs. raw sugar from 835 lbs. of beets, $6.36 per 1,000 lbs., makes cost of 100 lbs. sugar $2.65.

Comparison with Operation in Canada.

In Canada, for the first two seasons, it would be imprudent for any factory to contract with farmers for the purchase of the full quantity of beets required for the whole season's capacity of the works, as allowance should be made for stop pages incidental to the working of new machinery. Much also has to be learned as to the best methods of storing and preserving beets ; and the extention of the time to which it would be safe to venture in their preservation would be gradual. It is likely that any new factory erected in Canada will be of a capacityfor working 500 tons of roots in each 24 hours. There are certain fixed charges which will be incurred, all of them as heavy, or nearly so, in working 30,000 tons as for 50,000 tons, viz.:—fire insurance, wear and tear, repairs, re newals of buildings and machinery, annual salaries for skilled operatives and officers of the company. A careful calculation made by an expert, shows that these expenses in working only 30,000 tons of roots will be greater than when working 50,000 tons, by an amount equal to, on every 100 lbs. of sugar produced.............................. . $ 45

The cost in Germany for coal is much the same as in Canada. The cost in Germany for labor in the factory per ton of beets (2,000 lbs.) is 44½ cents, and for miscellaneous expenses 87 cents,the two items together being $1.31½ cents. In Canada these expenses for wages, materials, skilled operatives, etc., would be fully 50% higher, this excess being 66 cents per ton. Allowing beets in Canada to yield 10 per cent. of sugar, the increase in cost is equal to per 100 lbs. of sugar................................ 33

In Germany 12 lbs. of sugar are obtained from 100 lbs. of beets. In Canada, for some years, only 10 lbs. is likely to be obtained. With cost of sugar at $2.60 per 100 lbs., this is equal to a loss per 100 lbs. sugar.................... 43

Excess of cost in Canada per 100 lbs. sugar..... ... $1 21

The capital required tor a 500 bu. factory in Germany is about one million marks (nearly $250,000). With money there at 4% interest, this is per annum.............................. ..... $100,00

In Canada, $400,000 of capital would be required, which, with interest at 6%, forms a charge per annum....... 24,000

Excess in Canada................ ...... $13,000

On 3,000 tons sugar first year, is equal to per 100 lbs. sugar................................ 23

$1 44

When the Canadian factory gets into full operation, the first item of excess (15 cents per 100 lbs.) will be wiped out.

The second item (35 cents per 100 lbs.) is likely to continue.

The third item (43 cents per 100 lbs.) is expected to be extinguished in a few years, when it is believed that the price and value of beets will be the same as in Germany, for like relative quality.

The fourth item (23 cents per 100 lbs.) will be reduced to 14 cents, when the factory produces 5,000 tons of sugar per season.

When the above has been accomplished, the excess of cost of 100 lbs. of sugar in Canada will be:—2nd item, 33 cents; balance of 4th item, 14 cents, or in all, 47 cents.

Policy Necessary to the Establishment of the Beet-Sugar Industry in Canada.

In every country in Europe where the beet sugar industry has been successfully established, the early promoters were aided by direct assistance by royal grants, either in the shape of gifts or loans at nominal rates of interest. The industry has always been protected by heavy duties on imports of foreign sugar, and through the maintenance of this policy, Germany, France, Austria, Hungary, Russia, and some other countries have not only ceased to be importers, but have become extensive exporters of sugar. This export trade has been extended and promoted by means of bounties on exports.

From an extensive series of experiments in sugar beet cultivation conducted for three successive years in the Province of Ontario, and from the results ascertained by the beet-sugar manufacturers in the Province of Quebec, sufficient evidence has been obtained to show that the soil and climate in these provinces are as well adapted to this crop as in any country in Europe. There is also good reason for believing that the same favorable conditions prevail in large sections of the Provinces of Nova Scotia and New Brunswick. With a few years' experience in the selection of the most favorable soils, varieties of seed and methods of cultivation, and after the acquirement of all the labor-saving instruments which have proved profitable, there should be no difficulty in producing beets of as rich saccharine quality as are raised in any of the European countries, and at a lower cost, because of the comparatively high prices there for land and fertilizers.

In Canada, it has been considered sound policy to admit foreign raw sugar, free of duty, and it appears to be thought advisable to continue this policy. Under such circumstances the only means of establishing the industry here is by way of bonus, in a similar manner as in the case of iron. The beet sugar industry has special claims to the favorable consideration of Government and Parliament;

1. Because the whole value of the finished product will consist of Canadian material and labor.

2. Because 60 per cent and upwards of the cost of the manufactured sugar will go directly into the hands of farmers in payment for their beets. The farmers will be benefited not only from the profits obtained from the sale of the crop, but through the improvement to their land, owing to the high cultivation and thorough cleaning employed on this crop, by means of which their fields are greatly increased in fertility for succeeding crops. In addition to this, the pulp remaining after the sugar has been extracted will be procurable for fodder at much lower prices than any other equally good milk-producing or flesh-creating fodder can be raised.

3. The railway and other transportation companies will derive an immense amount of profitable traffic from the freight to and from the factory.

4. Dealers in coal and lime will have a large market for these articles.

5. Builders and agricultural implement-makers will derive a large business from the erection of factories, dwelling houses, etc., called into requisition by this industry, and for new implements required in husbandry.

6. Because the industry is free from many of the objections entertained against other manufacturing establishments. To provide for the manufacture, from Canadian beets, of all the sugar required for consumption in the Dominion, there is ample employment for thirty beet sugar factories of even larger capacity than the average of those in Europe, with which they will have to compete. They would be equipped with the most approved machinery, and could afford to employ the very best skill that can be found anywhere, so that the difference in cost of finished sugar would not exceed the difference in price paid for Canadian labor and beets.

Proposition for Bonus.

It has already been shown that in the early years of the enterprise the cost of sugar manufacture in Canada will be about $1.44 per 100 lbs. more than in Germany, and that this difference should be greatly reduced in the course of a few years. To meet this position, it is proposed that any measure granting a bonus should be on a graduated scale, being reduced from year to year, as beet-sugar companies should be able to succeed with the diminishing bonus.

For some years there has been a bonus on beet sugar made in Canada, of $1.00 per 100 lbs on sugar testing 70°; with an increase of 3⅓ cents per 100 lbs. for every degree above 70°, making bonus on

absolutely pure sugar testing 100°, $2.00 per 100 lbs It may be asked why, with such a liberal bonus, the industry has not developed. The reason has been that the bonus measure was simply a temporary and tentative act, which in no sense indicated the views of Parliament as to its disposition towards a permanent measure. It could hardly be expected that capitalists would invest the very large sums necessary for the erection of capacious factories until assured that the policy necessary to their profitable operation would be continued for the years required.

In view of the present low prices for sugar, and of the fact that the owners of the only beet sugar factory in operation in Canada have made preparations for the next season, by the importation of seed, etc., and that fully 2,000 farmers have prepared their land for this crop, under the expectation of a continuance of the present bonus on sugar, it is reasonable that it should be extended for another season.

No new factories can be erected so as to operate on any beet crop earlier than that of 1896, or for which any bonus shall be required before the financial year 1896-97. It is suggested that the bonus for that year shall be granted at 10 per cent. less than the existing bounty, and that in each of the following four years there should be a similar reduction, and that the reduced rate of bounty payable in 1900-'01 should be continued for the next five years by which time the beet-sugar industry ought to have become self-sustaining.

PROPOSITION FOR BONUS ON BEET SUGAR.

Quality of Sugar	Present bonus per 100 lbs. Sugar.	Proposed bonus for five years. 1896-'97	1897-'98	1898-'99	1899-1900	1900-'01
70°	$1 00	$ 90	$ 80	$ 70	$ 60	$ 50
75°	1 16⅔	1 05	93⅓	81⅔	70	58⅓
80°	1 33⅓	1 20	1 06⅔	93⅓	80	66⅔
85°	1 50	1 35	1 20	1 05	90	75
88°	1 60	1 44	1 28	1 12	96	80
90°	1 66⅔	1 50	1 33⅓	1 16⅔	1 00	83⅓
95°	1 83⅓	1 65	1 46⅔	1 28⅓	1 10	91⅔
100°	2 00	1 94	1 78	1 62	1 46	1 30

By maintaining the same rates of bonus as in year 1900-'01 for the five succeeding years, the average rate for the ten years on 88° sugar (which is the usual standard for beet sugar and equal to fair refining cane sugar) is 96 cents per 100 lbs., or equivalent to 32 per cent. on $3.00, which was its average value during last six years.

The bonus on 100° sugar, or pure refined sugar, is placed at 50 cents per 100 lbs. above the bonus on 88° sugar. It requires about

\$1.50 per 100 lbs to cover waste and cost of refining 88° sugar. This makes value of 100° sugar \$4.50, the average bonus on which for ten years is \$1.46 per 100 lbs., or equivalent to 32.44 per cent.

It is urged that owing to present financial position of the Dominion extra caution should be exercised in incurring any new liabilities. As has been above shown, no new factories can possibly be erected so as to create any bonus liability previous to the fiscal year 1896–'97, and even in that year, the customs revenue derived from the imports of the machinery, etc., required for the factory and the dwelling houses required to be erected in connection therewith will very nearly, if not altogether, equal the probable bonus payable on that year's output of sugar.

Conclusion.

There is no reason why Canada should not produce all the sugar required for its own consumption. Its imports during 1893-'94 amounted to 150,000 tons. This is an increase of 50 per cent. since 1887-'88. To produce a quantity of sugar equal to last year's importation, fully 100,000 acres of beets would require to be cultivated; thirty large first class beet sugar factories would be erected, involving an expenditure of over \$10,000,000; about \$9,000,000 would be expended annually in payment to farmers for beets and to operatives and others employed at the factories, and for transportation and for coal, lime and other materials; and an immense stimulus would be imparted to the dairy and cattle feeding industries. All this can be accomplished during the next ten years by the adoption of a liberal but reasonable measure of Government assistance to the industry.

The following extract is taken from the annual review of the Sugar Trade of 1894, issued by Messrs. Willett and Gray of New York, the largest sugar brokers in the world, and recognized authorities on all points connected with the trade:—"There is no good reason why the last increase of 1,000,000 tons in our (United States) consumption should not have been provided by our own agriculturists under exactly the same stimulus as has been given by Germany.

That Germany now has every confidence in the shortsightedness of the United States in this direction, and is still extending field culture, building new factories, and continuing bounties in order to supply us with the million more tons increase of the next ten years, while our own farmers are throwing away their energies and capital in raising wheat at 50 cents a bushel or less, and for which there is no market. What we need in this country now is German statesmanship, not in the interest of Germany and free trade, but of the United States and protection. And we need to devise some b~~o~~nding plan by which a bounty i contract made by one political party to stimulate industry can not be broken by the other party. Otherwise there can be no stability and no safety or success to the enterprise."